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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,749	09/24/2003	Yao-Ching S. Chen	SVL920030079US1	4497

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EXAMINER	
NGUYEN, MERILYN P	

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/669,749	CHEN ET AL.	
	Examiner	Art Unit	
	Merilyn P. Nguyen	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-39 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 24 September 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 09/24/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: Detailed Action.

DETAILED ACTION

1. Claims 1-39 are pending in this application.

Acknowledges

2. Receipt is acknowledged of the following items from the Applicant:

- Information Disclosure Statement (IDS) filed September 24, 2003 have been made of record. The references cited on the PTOL 1449 form have been considered.

Specification

3. The disclosure is objected to because of the following informalities:

- Title of the invention is lengthy. The suggested preferable title is between 2 to 7 words.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 14 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basic of this rejection is set forth in a two-prong test of:

(1) whether the claim is directed to a judicial exception (law of nature, natural phenomena, or an abstract idea) which would make it non-statutory if it is directed to the exception itself, rather than a practical application of the exception. One way a practical application can be established is through claiming a physical transformation (data transformation is not a physical transformation and is not, in and of itself, evidence of statutory subject matter).

(2) Where there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. That result is useful if it has specific, substantial and credible utility. Make a determination whether such is the case based on the perspective of one of ordinary skill having read the claim in light of the disclosure. It's concrete if it produces an assured, repeatable result (e.g., same input produces the same output each time the steps are performed). For it to be a tangible result, it must be more than just a thought or a computation. Instead, it must have real world value rather than being an abstract result.

In the present case, claimed invention (Claims 14 and 27) recites the term "logic"; it is reasonably interpreted as non-functional descriptive material and "logic" is not necessarily executable instructions.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 5, 6, 8, 10, 12-14, 18, 19, 21, 23, 25-27, 31, 32, 34, 36 and 38-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 14 and 27, these claims are confusing since it's not sure how one could combine join predicates and then not generate the join when it appears it has already been done. The combination of those statements is confusing. These claims are also silent as to what to do when they are not always FALSE and appear to have no result at that point.

Regarding claims 5, 6, 8, 18, 18, 21, 31, 32 and 34, these claims seems contradict each other. The Examiner hardly understands what is included or excluded by recited limitations of the invention.

Regarding claims 10, 12-13, 23, 25-26, 36 and 38-39, these claims are also confusing and vague as joins appears as it has already been done thus there are not necessary to whether the join is generated.

Regarding claims 27, the term "an article of manufacture" renders the claim indefinite. It's unclear as to which "an article of manufacture" is being referred to.

Due to the vagueness, confuses and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 10-18, 23-31 and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng (U.S. Patent No. 5,963,933).

Regarding claims 1, 14 and 27, Cheng discloses a method of, a computer-implementation apparatus comprising a computer system (Fig. 1) for, and an article of manufacture embodying logic for performing a method for optimizing a query in a computer system, the query being performed by the computer system to retrieve data from a database stored on the computer system (See Figs. 4-7), comprising:

(a) combining join predicates from a query with local predicates from each branch of one or more UNION ALL views referenced by the query (See col. 8, line 37 to col. 10, line 25);

(b) analyzing the combined predicates (See col. 5, lines 45-56 and col. 9, lines 20-35); and

(c) not generating the join when the analysis step indicates that the combined predicates are always FALSE and the join generates an empty result (See col. 9, lines 32-34 and col. 11, lines 20-25).

Regarding claims 2, 15 and 28, Cheng discloses wherein the query joins two or more of the UNION ALL views (See col. 8, line 37 to col. 10, line 25).

Regarding claims 3, 16 and 29, Cheng discloses wherein each UNION ALL view contains a UNION ALL of one base table with a local predicate specifying a data range in the base table (See col. 9, lines 1-60).

Regarding claims 4, 17 and 30, Cheng discloses wherein the join predicates are on columns of the UNION ALL views that correspond to the local predicates (See col. 9, lines 20-32).

Regarding claims 5, 18 and 31, Cheng discloses wherein a select-list of the query does not contain aggregate functions, a DISTINCT modifier, or a GROUP BY clause (See col. 9, lines 40-62).

Regarding claims 10, 23 and 36, Cheng discloses discloses wherein pruning logic determines whether the combined predicates from the local predicates from the branches of the UNION ALL views and joins of referencing query are contradictory (See col. 5, lines 44-54).

Regarding claims 11, 24 and 37, Cheng discloses discloses wherein the combined predicates are contradictory if the predicates always evaluate to FALSE (See col. 9, lines 25-34).

Regarding claims 12, 25 and 38, Cheng discloses discloses wherein no join is generated if the combined predicates are contradictory (See col. 9, lines 32-34 and col. 11, lines 20-25).

Regarding claims 13, 26 and 39, Cheng discloses discloses wherein the join is generated if the combined predicates are not contradictory (See col. 9, lines 32-34 and col. 11, lines 20-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 6-9, 19-22 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. Patent No. 5,963,933) in view of Jou (U.S. Patent No. 5,822,750).

Regarding claims 6, 19 and 32, Cheng discloses all the claimed subject matter as set forth above in claim 1, 14 and 27, however, Cheng is silent as to wherein a select-list of the query contains a DISTINCT modifier, but does not contain aggregate functions or a GROUP BY clause. On the other hand, Jou discloses a select-list of the query contains a DISTINCT modifier, but does not contain aggregate functions or a GROUP BY clause (See col. 4, lines 10-19, Jou et al.). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to having a select-list of the query contains a DISTINCT modifier, but does not contain aggregate functions or a GROUP BY clause because it's well known in the art that a select-list can contains DISTINCT modifier. The motivation would have been to enhance user's choices on what is included or exclusive from the query.

Regarding claims 7, 20 and 33, Cheng/Jou further discloses creating a new query block that includes a DISTINCT modifier with the select-list as a parent query block (Subquery 103, Fig. 1, Jou et al.).

Regarding claims 8, 21 and 34, Cheng/Jou discloses wherein a select-list of the query contains one or more aggregate functions and/or a GROUP BY clause (See col. 17, table 9, lines 32-40, Jou et al.).

Regarding claims 9, 22 and 35, Cheng/Jou further discloses creating a regrouping query block with a regrouping select-list and the GROUP BY clause, and another select-list used for distribution (See col.17, line 32 to col. 18, line 10, Jou et al.).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Young-Lai U.S Patent No. 6,807,546 discloses database system with methodology for distributing query optimization effort over large search spaces.

Lohman U.S Patent No. 6,092,062 discloses relational database query optimization to perform query evaluation plan, pruning based on the partition properties.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Merilyn P Nguyen whose telephone number is 571-272-4026. The examiner can normally be reached on M-F: 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MN
March 16, 2006

FRANTZ COBY
PRIMARY EXAMINER